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ORIGINAL ARTICLES.

Senile Endometritis, or Senile Metritis.

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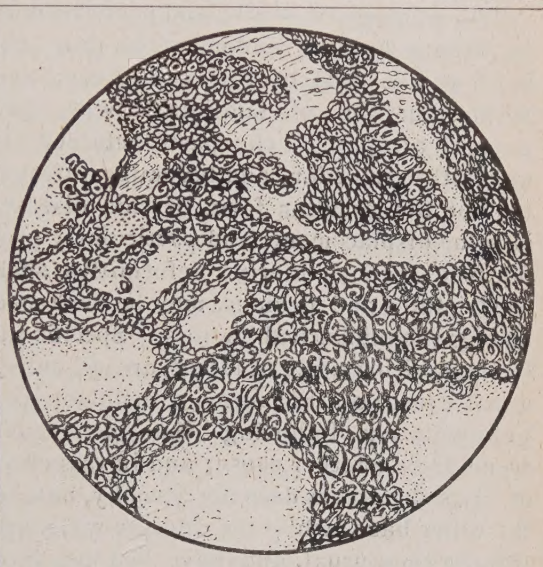
Read before the Western Surgical and Gynecological Association at Topeka, Kas., December 29, 1896.

A careful study and observation of a number of cases of this character within the last two or three years, leads me to adopt the latter name as the most appropriate to designate those inflammatory conditions that we find in the senile uterus, whether it be following the normal or a forced menopause; for this reason, that the endometrium undergoes more of an atrophy or retrograde metamorphosis than the muscular, or fibrous tissue; the utricular and the nabothian glands have also undergone the same retrograde metamorphosis; and all that is left of them are a few depressed follicles, totally devoid of the functional activity of those once useful and essential organs. In this respect the senile endometrium resembles very much that of the girl before the age of puberty.

The accompanying drawings represent the two conditions as they normally exist; they are reproduced from drawings in the "American Text-Book of Gynecology."

Fig. 1. "Represents the normal endometrium during menstrual life, showing the tissue crowded with corpuscles: the utricular follicles denuded of epithelium with one still containing an epithelial cast."



[FIG. 1.]

Fig. 2. "Shows the senile endometrium with nothing left of it, except fibrillar tissue, a few corpuscles, and atrophied utricular follicles."

[FIG. 2.]

With this picture of both forms of the endometrium in your mind, together with the

functional activity of the *one*, and the almost entire absence of it in the other, they would very naturally suggest to your mind the different pathological conditions that you would expect to find in each, and the consequent different treatment that would be indicated.

The etiology of senile endometritis may be from a chronic endometritis that existed at the time of the menopause; and which, instead of subsiding with the general atrophy of the parts, retained its unhealthy condition, and becoming infected took on the peculiar form of this disease. Uterine displacements and particularly prolapsus as well as uterine deformities, such as strictures and flexions, may be reckoned among the etiological factors. Specific infections, either acute or latent, are not unfrequent causes of this form of endometritis. Subinvolution following the menopause seems to be another cause; and in this class of cases the uterus does not atrophy, but, on the other hand, while the uterine walls are thinner than usual, and have lost much of their tonicity, the uterine canal is a little deeper than normal, while the endometrium has lost all of its normal functions and characteristics. Neoplasms, but especially fibromata, are frequent causes of this condition by obstructing drainage, and preventing involution and retarding atrophy. We find this condition sometimes in women who have undergone the operation of double ovariotomy while they were suffering from an endometritis; and it is a strong argument in favor of a thorough curettment in this class of cases prior to operation, or of doing a hysterectomy at the same time, as is advocated by some of our best operators; or of supplementing the operation by appropriate treatment.

The disease with which this is most likely to be confounded is cancer in some of its various forms. I have had two patients sent to me recently for operation under the supposition that they had cancer, and both have completely recovered under appropriate treatment for *senile endometritis*, nor is it the least reflection upon the professional skill of any practitioner to make this mistake, so nearly do they resemble each other in their earlier stages, and so many symptoms have they in common.

Senile vaginitis or vulvitis in women that are poorly nourished, or where due attention has not been paid to cleanliness, are recorded among the causes of this disease.

Symptoms—The symptoms of senile endometritis are not dissimilar from those found in endometritis, during the functional activity of the endometrium, with the exception of the discharge, which is of a "sero-purulent" character — no matter whether the disease be confined to the cervix, or to the body of the uterus, or both— the character of the discharge is pathognomonic of the disease. In many cases the skin is dry and harsh and shriveled, with that peculiar sallow appearance that would indicate a malignant trouble. These conditions come, no doubt, from malnutrition. In the granular form of this disease hemorrhage, more or less profuse, is one of the more prominent symptoms.

The physical signs, as shown by inspection, are usually more or less vaginitis, redness of the cervix without much erosion, or ulceration, and there being an absence of the epithelium and nabothian glands, and the follicles and the mucosa being changed, it has a smooth, glistening appearance more like fibrous or cicatricial tissue. But the character of the discharge is what distinguishes it from other inflammatory affections whether they be malignant or specific; and the diagnosis can be verified by the aid of the microscope, if any doubt exists.

Treatment—When we take into consideration the condition of the patients that most usually suffer from this trouble, and the character of the tissues that are affected, the first thing that suggests itself to the observing practitioner is to employ every means that will improve the general health: tonics, nourishing diet, aided by the digestive ferments if necessary; suitable out-door exercise when practicable; change of climate is often very beneficial, and such other matters of environment and hygiene as would naturally suggest themselves. But these

are only aids to the most important factor in the management of these cases—that of local treatment—and here let us lay down one broad general principle of treatment: *mild* and *antiseptic*. Caustics and the cautery, or the sharp curette, should never be used, because you have tissues of very low vitality, and if you resort to the use of any of them the underlying and surrounding tissues will break down, and you will get an ulcerating surface from infection that cannot be restored in that manner. If the trouble comes from a displacement or deformity, they should be corrected first; if from a neoplasm, that should be removed, if possible; if from specific trouble, that should first receive attention; if from vaginitis or vulvitis, they should be corrected; and so on, when practicable, first remove the cause and then your patient is ready for the local treatment. If there be granulation, with subinvolution, a dull curette should be used *very* gently and not oftener than once in a week or more, and the uterine cavity packed loosely with iodoform gauze and a tampon of wool and cotton, such as I show you here, saturated with ext. hamamelis and boroglyceride be applied to the cervix to support the uterus and relieve the hyperemia, while at the same time it acts well upon the existing vaginitis—should there be any. This should remain twenty-four to forty-eight hours and be removed, when a mild antiseptic douche should be used twice daily. This may consist of boracic acid solution or distilled extract hamamelis diluted with 15 to 20 parts of sterilized water, or hydrastis canadensis of suitable strength. The normal saline solution makes an excellent vaginal douche, or any of the other mild antiseptics may be employed. In four or five days the uterine cavity should be again packed with iodoform gauze, or an iodoform suppository may be inserted into the uterine cavity, or the powdered iodoform may be used with a suitable powder blower; in fact, I consider iodoform the sheet anchor in the management of all of these cases of senile endometritis. When you consider the character of the endometrium as well as that of the underlying tissue, it is evident that there is no danger from the toxic effect of the iodoform; at least I have seen none, and I am using it almost constantly in this class of cases. In those cases where there is no granulation the iodoform can be applied by means of the gauze or by the suppository or in powder, to suit the ideas of the operator. When it is confined to the cervix the iodoform can be applied on the tampon either dry or moistened with extract hamamelis or hydrastis canadensis, or boro-glyceride, according to the indications; good results can sometimes be obtained by the use of tannate of glycerine applied on a tampon, or by ichthyol and boro glyceride, 1:20, used the same way.

I know of no class of gynecological cases that are so amenable to treatment as these, when properly handled, or that yield such uniformly good results.

A few clinical cases from my case-book will best illustrate some of the principles that I have endeavored to present to you in this brief paper.

Case No. 1.—Mrs. P., white, married, American, age 34, multipara. Four years ago was suffering from chronic salpingitis and chronic endometritis, probably of specific character, and had been an invalid, confined to the house and bed for over a year. I operated upon her, removing both tubes and ovaries without treating or curetting the uterus. She made a good recovery, but the endometritis soon assumed the senile variety and the discharge changed to a sero-purulent character, and at times had a very offensive odor. The uterus did not involute perfectly; a few light, dull curettments were made at long intervals, followed by iodoform gauze packing and boro-glyceride tamponing and antiseptic vaginal douches, and later on massage, and the improvement was very marked, though at times ever since, from lack of care, or from exposure, or from over-exertion, she has slight relapses that readily yield to treatment.

I am of the opinion that if the treatment for the endometritis had been commenced soon after the operation this subsequent trouble could have been entirely averted and I have made it a rule for the past two years,

in similar cases, to commence the treatment of the endometritis soon after operation, with the result of preventing any subsequent senile trouble.

Case No. 2.—Mrs. H., age 64, white, widow, multipara. Was kindly referred to me by my friend, Dr. S., for a hysterectomy, under the belief that she had a beginning uterine cancer, but after more thorough examination we made a diagnosis of granular senile endometritis, with subinvolution. A few very mild curettments were made at intervals of about seven to ten days and the uterine cavity packed with iodoform gauze, and the hyperemia relieved by tampons saturated with boroglyceride and hamamelis every four or five days. Mild antiseptic douches were used once or twice daily. She was given a tonic of iron, quinine and strychnine, and she made a complete recovery in a few months. This woman had been curetted too much.

Case No. 3.—Mrs. M., white, widow, age 54, multipara—passed the climacteric at the age of 48 while suffering from a chronic endometritis. She remained in poor health until December, 1895, when I first examined her, and found her suffering from senile endometritis, which condition she said had existed since the menopause. She was placed under the most favorable conditions to improve her general health and the uterine cavity was cleansed and packed lightly with iodoform gauze and a tampon, saturated with boroglyceride and hydrastis canadensis, placed against the cervix; these were removed in forty-eight hours and warm, mild antiseptic vaginal douches used daily; at subsequent dressings an iodoform uterine suppository was used, instead of the gauze and tampons, and vaginal douches used as before, under which treatment she made a complete recovery in about three months.

Case No. 4.—Mrs. C., widow, age 63, presented herself at my clinic in November, 1895, with the usual symptoms of endometritis, but the characteristic sero-purulent discharge denoted the true character of the disease. Examination showed it to be a senile cervical endometritis with an extensive vaginitis. She attributed her condition to overwork, exposure and lack of good nourishment. She was placed upon good nourishing diet, given tonics of iron and strychnine, and a tampon of hydrastis canadensis and iodoform applied to the cervix every seven days, and in the interval vaginal douches of boracic acid solution or ext. hamamelis were used twice daily. Under this line of treatment for nearly three months she made a complete recovery, and returned to the clinic a few weeks ago without having had any return of the disease.

This patient had been subjected to cauterization of cervix and other severe treatment prior to my taking charge of the case, which had only aggravated the condition.

Case No. 5.—Mrs. B., widow, age 74, multipara. Consulted me first about three months ago for what she had been informed was "cancer of the womb," and for the relief of which a hysterectomy had been advised. For nearly three years her health had been failing, but the mental strain was far worse than the disease, fearing, as she did, that she was afflicted with a malignant trouble that must sooner or later terminate fatally. Examination showed a senile endometritis, with prolapsus of the uterus, which dragging the bladder down produced an extensive cystocele, especially noticeable and distressing when standing for any considerable length of time. The uterus was considerably enlarged and subinvoluted and upon the cervix around the os was the dark purple ring which is so often seen in this disease. The principle of treatment that I decided upon was, to return the uterus to its normal position and retain it there, while at the same time endeavor to reduce the inflammatory condition as well as the abnormal size of the uterus; this at the same time would give the uterine supports an opportunity to resume their normal functional activity; this was done by packing the uterine cavity with iodoform gauze at first and supporting the uterus with large wool and cotton tampons saturated with boroglyceride and ichthyol at first, and subsequently substituting taunin for the ichthyol. The distilled extract of hamamelis diluted was used for the vaginal douche. The general health and tonicity of the system was improved by tonics and the digestive ferments. This line of treatment was continued about two months, when the patient discharged herself, declaring that she was as well as ever.

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Topeka, Kansas, Saturday, Jan. 16, 1897.

THE failure of a great many medical society meetings is due to the carelessness with which members respond to the request for papers, and their neglect in preparing them after they have been promised At a recent meeting in Topeka there were seven papers on the program and out of this number only one paper was presented. The officers of a society are unable to control matters of this kind, and yet they are held responsible for failure. Another point in society work is the care which members take in preparation of papers and discussions. A poorly prepared paper does the author great injustice and is a discourtesy to the society. Every society can be made interesting if the authors of papers and those who wish to discuss them will take time for preparation.

A NEW anatomical bill is being prepared for early introduction in the Legislature. This is one of the most important measures that will come up this session. With two medical colleges in the State some provision should be made by which material can be obtained legitimately and without the usual public censure. We hope the members will see its importance and act accordingly.

WE call attention to the Oak Lawn Private Retreat, advertised in this issue. This is one of the finest private insane hospitals in the country, and its superintendent is a man of many years experience in this line of work.

AN old physician with a small amount of cash can find a good easy location by applying at this office. Party leaving has been in practice at this place a long time.

DR. GILLETT, from Parsons, Kas., was in the city this week absorbing some of the political atmosphere at the State House.

THE proceedings of the Eastern Kansas Medical Society will be published in the next issue of the JOURNAL.

A Schoolboy's Essay on Respiration.

"Breath is made of air. We always breathe with our lungs, and sometimes with our livers, except at night, when our breath keeps life going through our noses while we are asleep. If it wasn't for our breath we should die whenever we slept. Boys that stay in a room all day should not breathe; they should wait till they get out of doors. For a lot of boys staying in a room make carbonicide, and carbonicide is more poisonous than mad dogs; though not just the same way. It does not bite; but that does not matter as long as it kills you."

The Appendicitis Craze and the Grape Cure.

American Medical Record.

A contribution from the pen of Dr. I. C. Rosse to *Maryland Medical Journal*, October 24, contains the ensuing observations and remarks:

With reference to the prejudice attending the eating of grapes, because of the fear of appendicitis, the author remarks that there is no evidence to show that grapes have anything to do with causing appendicitis. On the contrary, a grape diet is one of the best prophylactics and correctives of the diathesis causing that form of phosphatic deposit in the vermiform appendix, thought to be a grape seed.

Quoting Dr. Thornton, of Boston, who in a case of bowel obstruction removed about a quart of grape seed, the writer says:

"It is interesting to note how calmly the appendix allowed this mass to sail by its portal without interference."

The nutriment afforded by good grapes is typically representative of all the alimentary principles. They are, however, poor in protein compared with some other foods. Fresenius says it takes one pound and a quarter of grapes to yield the equivalent of portein found in one egg. The first physiological effect of grapes in the promotion of the secretions and of the excretions, without irritation of the intestinal canal, when, however, the grapes selected are proper for the treatment and there is no contraindications. The continuous consumption of grapes removes tartar from the teeth. It may attack the enamel. Grapes are of great value in cases of irregular digestion.

The aphrodisiacal effect of grapes may be turned to advantage, the writer further remarks, in treating impotency, provided the fruit is taken in large quantities. Dr. Rosse says he has succeeded by this method in breaking up the bromide habit in a case of obstinate insomnia, after all other means had failed. Some authorities think the grape cure of doubtful efficacy in the uric acid diathesis.

"The methodical use of grapes, in quantities of from three to eight pounds daily, with or without other nourishment, according to the therapeutic object and the patient's peculiarities, is much in vogue at the so-called uval or grape cure stations in Germany and Switzerland; such places as Duerkheim, Meran, Vevey, Aigle, Cellesles-Bains, and Bingen being noted for grapes and as climatic places of great repute. Other places of the kind are to be found in the south of France, in Italy, and in Austria. At these stations the grape cure and the milk cure go together, and both are usually combined with the employment of mineral water.

"The time of the year at which the cure is most practicable is from the middle of August to the last of October. The grapes are eaten preferably in the open air, before breakfast, and upon an empty stomach; but if the stomach is weak, a small crust of bread may be taken after the first portion, between seven and eight in the morning. The second portion should be eaten one hour before dinner; the third in the afternoon, between three and five o'clock, two hours after dinner, and a fourth may, sometimes, be eaten just before bedtime.

"The grapes must be eaten fresh and ripe; they are to be crushed between the tongue and palate, not the teeth, and the skin and seed should be ejected. This latter precaution is, however, not indispensable, being one of those things that may be left to individual preference. Beginning with from one or two pounds, the quantity is to be daily increased half a pound until the prescribed quantity is reached, and then slowly decreased. The treatment requires from one to six weeks, during which all heavy and greasy dishes are to be interdicted.

"Food that causes flatulence, potatoes, eggs, milk, cheese and beer, are also to be avoided; but coffee, chocolate, tea, bread and butter, tender fishes or meat, and in some instances cod-liver oil, are permissible. It is also advisable to use an alkaline powder or a wash to protect the teeth and pre-

vent the gingivitis that may sometimes occur.

"As a rule, the grapes especially suitable to bring about a therapeutic modification are those that contain a large percentage of grape sugar. Among the richest are the Hungarian, which contains 301 parts in the 1,000. When the stomach will not take the grapes by eating, the freshly expressed juice may be used. They may also be bottled by a special process (*Procede Appert*), and employed at any time of the year.

"Externally, grapes have been used in the form of baths, which are provided at some of the European grape-cure stations for persons who want to be plunged into the mash of grapes, while it is in a state of fermentation. These baths, used principally for rheumatism, were formally recommended by Tissot in peripheral paralysis.

"Ths grape regimen, as an after-cure, is regarded in Germany as necessary and indispensable in the completion of a thermo-mineral treatment. Whether used as a principal or as an accessory resource of treatment, in order to be well tolerated and successful, it requires the concourse of adjuvant hygienic influences, which may lead to the supposition that success has been obtained rather by such influences than by the grapes themselves. I have, however, obtained the happiest results, aside from climatological influence, in patients who lived in a town and used the grapes methodically at home, while from Maine to California, numerous persons, prompted to try the cure, after reading my first paper on the subject, have written me most encouraging results from its use."

Functional Cardiac Murmurs.

Discussion of "Anemia in Relation to Cardiac Disease," New York Academy in Medical Record.

Dr. William H. Thompson said he had been rather disappointed to hear anemic cardiac murmurs referred to almost to the exclusion of functional murmurs. The latter were extremely interesting to him, and he was sure that in many cases they were the most important ones which came before the hospital physician and the insurance examiner. Functional murmurs included much more than anemic murmurs. He had known of more than one man being rejected for instance because of a murmur taken to be a cardiac regurgitant, but which Dr. Thompson believed was only functional; yet there was no anemia. He was sure there were some strange murmurs which were affected by the respiration and which were certainly functional. All functional murmurs were systolic. A diastolic murmur could not be functional, neither could a presystolic murmur. A systolic hæmic murmur, as in chlorosis, was heard loudest at the second interspace to the left of the sternum, and while it was frequently transmitted down to the apex, where one heard mitral organic murmurs, yet it was never so loud there, nor was it transmitted to the left, but rather to the right. He did not doubt that Dr. Smith had, as he had stated, occassionally heard a hæmic murmur in the axilla to the left; but Dr. Thomson personally had never had such experience. When in doubt whether a murmur was functional or organic, the examiner should have the patient lie down, and if it were functional it would be diminished. Further, if it were functional, it would totally disappear while the patient took a long breath and held it. If the murmur were due to a lesion of the mitral valve, it would not diminish on lying down, nor disappear on holding the breath. Then there was a difference in the character of the sound. It was not whizzing, buzzing or booming, as in functional murmurs. The functional murmur diminished also on quieting the patient, who, when he came in for examination, was likely to be much excited, anxious, and to have a rapid pulse. He believed such functional murmurs to be due largely to the muscular element of a rapidly acting, irritated heart in nervous persons.

There was another kind of functional murmur which was very puzzling indeed. It was heard during certain acts of respiration, but was particularly apt to be heard during inspiration and then to disappear.

It occurred at the mitral area and was not transmitted at all. This was one of the most peculiar of murmurs, as he had heard it nearly as far to the right as the nipple, and again on the left side, away from the the area of the heart, very nearly at the posterior auxillary line. He did not know how it was produced, but evidently it was through the lung. A murmur which was heard at a distance from any of the areas of the heart could be put down as functional.

The question of amenia was a large one, and he would say but a few words on it. He fully agreed with Dr Smith, that anemia in relation to the heart was very important. He believed, also, that it bore a causative relation in many instances to organic trouble in the heart; that there were cases of heart disease which were produced by anemia in the first instance. Throughout the whole animal kingdom muscular power was in direct proportion to respiration. Muscular weakness tended to produce anemia. The muscle cell had to breathe more than any other cell, more even than the nerve cell, for it had two functions to perform—to produce muscular contraction and to make heat. The most marked cases of fatty heart found at the autopsy table were in pernicious anemia. There was a softened heart in chlorosis, and in anemia connected with muscular debility we found a weak heart. Many cases of cardiac disease had dated from a muscle disease, like rheumatic fever.

Dr. Thompson would take issue with any one who would give iron simply because there was anemia. In all febrile anemias it did mischief. Doctors were very apt to give it in the anemia of acute articular rheumatism, and the resuls was much harm, for it increased temperature. It was so in phthisis. It would be far better to give cod-liver oil.

The Use of Sage.

Medical Press and Circular.

In years gone by, an infusion of leaves of sage (*Salvia Officinalis*) was highly appreciated in certain parts of Europe as a means of combating the night sweats of phthisical patients, but its use has now given place to that of atropine, agaricine, and other modern anti sudorifics. According to Krahn, the oblivion into which sage has fallen is undeserved, for in some thirty-eight cases of hyperidrosis in which he employed this remedy, success rewarded his experiment in all but two. Most of his patients were tuberculous, but some of them were suffering from articular rheumatism, leukæmia, and typhoid fever. In eighteen of the cases the excessive respiration forthwith disappeared, and in the remainder the effects were markedly favorable. He prescribed the sage at first in the form of an infusion containing about forty grains of leaves to a pint of boiling water, of which the patient took a cupful three times a day, but he found subsequently that the tincture was more active.

Municipal Liabilities for Sanitary Defects.

Henry Leffmann, M.D., Dietetic and Hygienic Gazette.

This is an age of suits for damages. The trial lists of our courts are choked with cases against corporations which carry on work that imperils life and limb. The street railway companies are especially liable to such suits. Shrewd lawyers are permanently employed for the business of settling claims for injury to person or property, for it is well known that heavy damages will almost certainly be rendered if the case goes to a jury.

Cities are corporations and suits are often brought for damage done person and property, but such claims usually rest upon some tangible or specific defect or action. Lately a new phase of lawsuit has arisen. From an able and extensive report by Messrs. J. W. Hill, Samuel Whinery and Geo. H. Benzenberg, on the improvement of the Cincinnati water supply, we take the notes of two interesting cases.

A suit has recently been brought against the Ashland (Wis.) water company by Mrs. Julia L. Greene, of that city, for the legal value of the life of her husband, who died

of typhoid fever in 1894. The suit is based on the theory that the water supplied by the company was polluted by sewage and infected by the typhoid bacillus; that this contamination was pointed out by the board of health and that in spite of this warning the company refused or failed to adopt any means of purification and continued to supply the infected water to its customers, and from this source Mr. Greene imbibed the germ of typhoid fever and that the company by its negligence is liable for his death.

A citizen or Duluth, Minn., has brought suit against the water company of that city for the loss of his son's life by typhoid fever, alleging that it was contracted from the sewage polluted water.

If either of these suits should be successful a precedent will be established which will bankrupt many of the water companies and municipalities in the United States. Suppose, for instance, the City of Philadelphia should be held in pecuniary liability for each of the 469 deaths that were caused by typhoid fever in 1895.

In the two instances cited, suits are brought against water companies which are private corporations. There are certain legal restrictions as to the liability of municipal corporations which may avoid similar suits, but even the litigation necessary to test the law will be costly and threatening.

To begin a suit is very easy; to get a verdict is far a different matter. Theoretically, the law is without money and without price, but practically it is costly and devious. To establish that a given case of typhoid fever has come from a certain source is no easy task. Most sanitarians are in complete agreement as to the usual manner of propagation of this disease, and it will doubtless not be difficult to get expert testimony in favor of the allegations of the plaintiffs in the suits above noted. In trials, however, a definite relation between the jury and the alleged cause of injury must be established, or as the lawyer's phrase it, the *corpus delicti*—the body of the offense—must be known. In these cases the body of the offense is the typhoid bacillus, and the attempts to find this in water known to be polluted have mostly failed. It is true there are numerous published statements of the finding of this microbe in water, but when they are closely scrutinized most of them are found to rest on insufficient data. Moreover, how will it be possible to determine the character of the water at the time of the infection? Infected water does not act like a common poison; with such, the symptoms arise almost immediately, but with typhoid fever there is a long incubation period and several weeks of illness. A death from typhoid fever on October 30 may have resulted from an infection on October 1, and how will it be possible to secure a sample of water representing the earlier date. Indeed, it seems to us that it would be necessary to show that the disease germ was actually in the portion of water which had been consumed by the patient. The case is again quite different from the finding of a poison. If a person who has been poisoned is known to have taken of soup and a small amount of this remains in the plate, an analysis which shows the presence of a poison capable of causing the symptoms noted, makes a very strong link in the proof, for the presumption is that it was equally distributed through the mass, but the typhoid bacillus is an individual, and it may be in one portion of a mass of water and not in another.

It will not be to the advantage of sanitary science if such suits become frequent. The theories in regard to the cause and propagation of disease are pretty well established, but they are not ready to be submitted to such severe tests. Few, if any, sanitarians at the present day will doubt that if a city using an unfiltered surface water has an annual typhoid death rate of thirty per hundred thousand, the fault is largely in the water, but to maintain that any particular death is due to this cause goes beyond good judgment. In any large community there are local causes of disease. Various forms of food, especially milk and vegetables, may distribute the disease; in some cases direct contagion may be responsible.

If these cases ever reach the stage of trial the conflict of expert testimony will be interesting, if not startling, and we will get

some idea of the drift of thought among doctors and chemists and have an opportunity of estimating how far doctrines taught by the leaders in sanitary science have been accepted by the educated classes.

Condensed Facts for the General Practitioner.

The Electro-Therapentist.

General practitioners desiring to use electricity in their practice, but possessing practically no knowledge of the electro-therapeutics, will do well to read, study *and learn* the following points:

The faradic or interrupted current cures disease mainly through physiolgical and mechanical processes, producing no appreciable chemical effect in the tissues.

In each faradic battery there should be two coils—primary and secondary.

The current from the primary coil has greater quantity and produces greater mechanical effects, but lacks penetrating power, and is more useful in superficial troubles, particularly where mechanical efforts are desired.

It is also of service in internal treatments for many vaginal and uterine diseases.

In the primary current there is some difference in polarity, the positive pole producing greater sedation and the negative pole greater stimulation.

The secondary coil produces a current having much greater penetrating power than the primary current.

It will more easily overcome resistance on account of its greater tension, and is to be preferred to the primary current in treating deeply-seated conditions.

There is no appreciable difference in polarity in the current from the secondary coil.

The current from the secondary coil is much more pleasant in its effect, particularly to nervous subjects.

In the direct galvanic current there are no interruptions to the current as in the physiological and mechanical effects.

There is no sensation to the current beyond a feeling of numbness and burning beneath the electrodes.

In general terms, it may be stated that the faradic current is to be preferred in muscular troubles and the galvanic in nervous diseases.

The galvanic current will produce a greater degree of sedation or stimulation.

The galvanic current should be used to stimulate the absorbents, to remove effusions, morbid growths, callosities, tumors, facial blemishes, superfluous hairs, etc. In these conditions the faradic current is practically powerless.

The positive pole of the galvanic current is much more sedative and the negative pole much more irritating and stimulating.

Electrolysis and cataphoresis can only be used with the galvanic current.

To produce the most pronounced sedative effect and allay irritability make stabile applications of the positive pole, galvanic current.

To produce the most marked irritation, use the negative pole of the galvanic battery or reverse the polarity frequently.

Electricity has a decided refreshing and soothing effect upon the entire nervous system, and is of great service in nearly all nervous diseases.

Either faradic or galvanic current will equalize the circulation, increase the flow of blood to the surface and extremities, and improve nutrition and assimilation.

Billroth's Advice to a Young Man Intending to Study Medicine.

A correspondent of the *Boston Medical and Surgical Journal* has published a letter addressed by Billroth to an intimate friend, from which we extract the following: "You tell me of the tribulations of the landed proprietor, his subjection to wind, weather, fire, and the like; well, I have no intention of discouraging you or Robert, but the doctor does not lie altogether on a bed of roses. Competition grows constantly more fierce; in the beginning things generally come hard. As a student one has the pleasure of

obtaining something of a glimpse into the workings of nature, as well as the diseases which assail humanity. The state of entire satisfaction which ensues on passing the examinations is gradually undermined by the discovery that our knowledge is but fragmentary; that in those cases where we would most gladly render assistance we often fail of doing so; often, too, we are harrassed by doubts as to the proper course to pursue. Unless one is willing to pass through the world in a state of chronic perturbation, one must rest content with doing his duty to the best of his knowledge and belief. A man's greatest blessings are then met with in the shape of a placid and loving wife and undisturbed domestic happiness. Hardly, however, have you reached your home prepared to enjoy these pleasures, when there comes a knock on the door, and duty calls you out again in the cold and stormy night. Few are the joys of the physician. Here and there true loyalty on the part of his patients, emphasized occasionally, although perhaps seldom, by a material token, infrequent gratitude for the most absolute devotion to duty, nay, even for personal sacrifice; joy over a completed cure; the consciousness of having done one's utmost—these are ordinarily the highest satisfactions the physician can attain. You think, perchance, that I paint the picture in too gloomy colors; but when twenty years have gone by and these lines fall into Robert's hands, he will perhaps say I was right. If once he has a true vocation for medicine, he need not take this into much account. You wish me to write you plainly and in detail. Do not fear lest I continue in this strain; the worst has been said, and, after all, the state of being here is not much worse than one finds in other walks of life. What special quality must one possess in order to be a good physician? My colleague here, Nothnagel, whose work on diseases of the nervous system will at some later day be appreciated by Robert, when inaugurated professor of the house clinic here, said, among other things in his address, 'Only a good man can be a good physician,' and I too share his opinion; it is the supreme regulator of the inner, as well as of the outer effect of the physician's actions. To the phrase 'good man' I would like to add the words 'well brought up,' that is, in a family the existence of which is permeated by a spirit of charity toward all mankind. This condition is fulfilled in the case of your Robert. He must be actuated by an uncontrollable impulse to help other unhappy creatures, at first implanted in him at his birth and well developed; while cultivated feeling and the experience of life have later led him through reflection to the conviction that, however eagerly the man of moral training may chase after happiness, he will ultimately find true happiness to lie in making others happy to the extent of his ability. In this direction alone dare he cultivate egotism, I mean make himself happy, as much so as possible. In so far as this originates in his moral training, it will be a never-failing source of self-purification, a means of strengthening the sense of duty, a reinforcement of his own moral nature. Should misfortune overwhelm him, he will find that, in assisting others who are even more unfortunate than himself, he has gained comfort as well as the strength requisite for pressing on in the race. To enable the physician to spend himself freely, he must have accumulated a rich fund of knowledge. And in possessing such a treasure the physician enjoys the special privilege of seeing it increase directly in proportion to the lavishness with which it is spent. Activity in the practice of medicine leads to increase in experience, development of judgment, impels us to supply the deficiencies in our knowledge, enables us to follow the progress of the art of medicine, which itself results from the progress of science. A physician who gives himself up to critical, unprejudiced observation sees his own stock of experience and knowledge increase in the very dispensing of it for the relief of others—always provided that he is a good man, with a strong sense of duty, and has a sound understanding, and takes delight in his work and in his calling "

Early Diagnosis and Early Nephrectomy for Tuberculosis of the Kidneys.

Medical Record.

Dr. Willy Meyer read the paper. One patient was shown, and one or more tuberculous kidneys were exhibited. On some points he quoted from his paper read at the last meeting of the State Medical society on the early diagnosis of tuberculosis of the kidneys. The following case illustrated some of the points which he wished now to emphasize. A woman entered the hospital, giving a history of frequent micturition lancinating and burning pain during micturition, pain in the pelvis, headache, insomnia, urine slightly turbid. She was sent to his ward, and in accord with his custom he had a careful examination made, and no evidence was found of tuberculosis of the lung or elsewhere, and yet cystoscopic examination revealed a slight change in the bladder, which convinced him that there was probably tuberculosis of one kidney. About the mount of the right ureter was an appearance as of footprints in snow, and at the orifice was slight congestion. The rest of the bladder was normal. Introduction of the ureteral catheter revealed some constriction, about three-fourths of an inch from the orifice. An attempt to collect the urine from the right ureter failed, but succeeded with the left one. The urine thus collected was clear, whereas that passed by the urethra contained tubercle bacilli, which it was fair to infer came from the right kidney. The diagnosis was then made of primary tuberculosis of the right kidney, with secondary local infection of the bladder. Nephrectomy was then performed; the kidney (the right one) was tuberculous. The patient made a good recovery; the symptoms disappeared, the tubercle bacilli disappeared from the urine, and the tuberculous spots about the right ureteral orifice disappeared.

A case almost exactly similar had been published by Caspar, of Berlin, the only difference being that Caspar was able to catheterize both ureters. Dr. Meyer had seen other cases, but later in the disease. The one related belonged among the very few thus far reported showing what could be done to prevent secondary infection when early diagnosis, leading up to nephrectomy, was made. He impressed the necessity for cystoscopic examination in all cases of obscure bladder or urinary troubles. While in the majority of cases calculi might be the cause of the symptoms, yet in some tuberculous trouble would be found.

The chairman, Dr. Curtis, remarked that in women Kelly's cystoscope could be used by one not especially expert. The fact that the localized bladder changes had disappeared so promply in Dr. Meyer's and the other cases referred to, would seem to indicate that it was due only to irritation, and had not yet resulted in true tuberculous infection.

Dr. F. Tilden Brown had had opportunity in two autopsies to verify the existence of a local congestion around one ureteral orifice, the side on which there was tuberculosis of the kidney. It was very fortunate that Dr. Meyer had met with such a case in time to operate and prevent secondary infection. He would prefer to use the term local to that of primary infection of the kidney, for it was difficult to conceive of the bacilli reaching the kidney primarily. Tuberculosis might exist in the kidney for a variable period of the time without evidence of it being found in the bladder or urine, this evidence appearing only after communication had become established with the pelvis of the organ. Even if one operated as soon as urinary and vesical symptoms developed, he then might find the kidney practically destroyed. He mentioned two cases of general tuberculosis, in which lesions were also found in the kidneys, evidently of a chronic nature. In one at least he thought the patient might, as far as the kidney lesion was concerned, have lived on indefinitely under a change of climate and correct diet. While he regarded Dr. Meyer's position as correct, and thought that in time many cases might be saved by early diagnosis and operation, yet too rash interference was to be avoided, for no doubt there

were cases of commencing or limited tuberculosis of the kidneys, as of other organs, from which the patient might recover. If, after six months' climatic and hygienic treatment, one found the patient declining, he should operate.

Dr. Mynter, of Buffalo, congratulated Dr. Meyer on his pioneer work in cystoscopy and the diagnosis of kidney disease, in this country. He repeated the opinion expressed while discussing Dr. Sands' case of tuberculosis of the knee, that one should remove a tuberculous focus as soon as he established the diagnosis. He would likewise remove the tuberculous kidney. He mentioned a case in which the cystoscopic examination alone could, and did, reveal a piece of chewing-gum in a man's bladder, the patient having introduced it into the urethra to determine whether he had stricture. He also mentioned a case in which a large cast came down from the ureter; the diagnosis of tuberculous nephritis was made, nephrectomy was done, and the patient's symptoms disappeared.

The Treatment of Pneumonia by Large Doses of Digitalis.

The Atlantic Medical Weekly.

Barth (*Sem. med.*, July 22, 1896), advocates this treatment in certain cases of pneumonia. Trabue was the first to recommend digitalis in 1850, and Hirtz upheld its use most strongly, but the method was forgotten till Petrescu, of Bucharest, again brought it forward. He gives as much as one hundred and twenty-four grains of the powdered leaves in an infusion a day for two to four days, the mortality among 825 cases so treated being 2.06 per cent. He never saw any signs of digitalis poisoning. After one day of this treatment, the temperature falls one degree to three degrees C., and after two or three days five degrees or six degrees C. Eikl, giving thirty to forty-five grains a day, had very good results, the fever generally ending by lysis; occasionally, however, symptoms of poisoning supervened. Hueppel, in 1892, treated fifteen cases with forty-five to sixty grains a day without observing any poisoning, the fever usually terminating by lysis on the second or third day of treatment. Barnes formulates the following rules:

1. If the patient is strong, under forty, with no concomitant organic disease, preference must be given to the treatment of baths.

2. Under opposite conditions, especially when the heart is feeble, digitalis should be given in doses of forty-seven to eighty-four grains of the powdered leaves a day, exhibiting it every two hours infused in water with the addition of rum and syrup of orange peel.

Slight vomiting and vertigo are not contraindications, but the treatment must be continued till the pulse becomes abnormally slow or irregular. He doubts whether the enormous doses given by Petrescu are free from risk, and whether the artificial lowering of temperature by them is of real value; forty-five grains a day of the powdered leaves should be the maximum dose.

Electrolysis of the Posterior Extremity of the Turbinates.

Dr. Helot has made systematic use of electrolysis in the reduction of the hypertrophy of the posterior extremity of the turbinals, and he prefers this to the galvanocautery and the cold snare. (*Archiv. Int. de Laryng.*) He uses a current of from five to twelve milliamperes for five to ten minutes. A strong steel needle is passed into each nostril and into the tumefied portions of the turbinate. There is no bleeding, except at the positive electrode. With soft tumors, the results are rapid. Two applications with intervals of eight days are sufficient. For white and hard tumors, three or four applications are necessary, or a single application may be made and the operation finished with the cold snare without fear of hemorrhage. This method is not dangerous, and removes the fear of a severe reaction and hemorrhage.

Mullein Oil in Ear Troubles.

The Southern Clinic.

Believing that the little things in medicine are often as of much value as the far fetched, I give you a remedy that I have used successfully in diseases of the ear, in aural catarrh, and otitis media. It is the oil of mullein dropped into the ear. To obtain the same, break off the upper portions of the yellow blossoms of the common mullein and fill a glass pint jar or bottle, put on the cover, and place it in the sun for a few days. The oil will be deposited in the bottom of the jar. Strain through flannel and bottle for future use. The addition of two drops specific belladonna to one drachm of the oil, dropping two or three drops in the ear, has cured for me many cases of nervous deafness. It also helps to remove the plugs of cerumen and dead epithelial scales so common in elderly people. Though this little clinical note lacks the halo of scientific origin and introduction into the United States from Germany, France, or elsewhere, (anywhere, only that it comes from abroad,) the merits of the treatment advocated by Dr. Williamson will, I am safe in saying, be sustained in general practice, and surpass in efficacy nine out of ten of the average remedies heralded from across the Atlantic.

Neurosine vs. Morphine.

Positively no Morphins in Neurosine.—Neurosine is the most powerful neurostic attainable, quieting the nerves and producing natural sleep. Physicians should never prescribe or recommend any product which the laity could obtain from the druggists to produce sleep, that contains morphine. There is hardly a day but that fatal results occur (to those using stimulants to excess and other causes) who resort to neurotics to steady their nerves and produce sleep. It is hard for one to believe that manufacturing chemists would be so unprincipled as to compound morphine without indicating same is in formula. The Dios Chemical company of St. Louis, manufacturers of neurosine, publishes the formula complete, which is composed of the following well-known and tried drugs: Chemically pure bromides of potassium, sodium, ammonium, zinc, extracts of henbane, belladonna, lupuli and cascara sagrada with aromatic elixirs.

New Method of Radical Cure Inguinal Hernia Without Sunken Threads.

Journal of the American Medical Association.

An article in the *Semaine Med.* of November 11, signed by Professor Duplay and Cazin, illustrates a way by which the hernial sac is tied without threads which frequently produce trouble later. The sac is first opened and explored with the fingers, all adherences detached, and a portion of the omentum resected if necessary. The sac is then completely dissected, and an assistant draws out the base with a pair of forceps as far and as long as possible, with that portion of the peritoneum normally situated 2 to 3 centimeters above the internal inguinal ring. The operator then seizes the end with another pair of forceps and draws it around and through to make a knot, as high up as possible. The ends remaining above the knot are then split and one end is drawn around and through in the same way, to make another knot, or pass through a slit in the other half, and this is repeated as often as the length of the sac will allow. In case the sac was so short that it was split in four pieces and the four ends tied in knots two by two. A strong fastening is thus made without the introduction of any foreign substance, remarkably simple and perfect in its results. When the traction ceases it sinks out of sight immediately, as in the classic operation. It was always found that the highest part of the knot remained 2 or 3 centimeters above the internal inguinal ring. The operation is then completed in the usual manner. If the sac is too thick to be tied in this way, it can be split and knots made in each half separately.